1812

THE NATIONAL CITY BANK OF NEW YORK

1933

Economic Conditions
Governmental Finance
United States Securities

New York, September, 1933.

General Business Conditions

TRADE in the primary markets, and industrial operations generally, have slackened somewhat during August, after advancing between March and July to the highest level since the Spring of 1931. In this slackening the usual "Summer dullness," which ordinarily would have been felt a month or six weeks earlier, is plainly a factor. However, the chief explanation is in the character of the preceding advance, which was not only unparalleled in speed and extent, but was influenced by extraordinary measures tending to raise prices. These included of course the gold embargo and the inflationary powers authorized by Congress for possible use, and the ensuing depreciation of the dollar in the foreign exchanges; the enforced wage increases and reductions in working hours under the Industrial Recovery Act; and the processing taxes and restrictions on farm production under the Farm Relief Act.

With these measures going into effect, and natural business recovery setting in upon the restoration of confidence after the bank holiday, far-sighted business men naturally attempted to cover their needs for commodities and merchandise as far ahead as was practicable, and the accompanying speculation in securities and staple commodities developed. The greatest recovery in prices and in industrial operations ever experienced in an equivalent period was the result.

During the past few weeks, however, these influences for higher prices in the primary markets have gradually been discounted, and the inducements to buy ahead have become less compelling. The speculation in stocks, grains and cotton has collapsed with results which need no description. In many industries the higher costs due to the measures cited have now been added to prices, and the factor of "beating the gun" is no longer present. In others manufacturers have sold all the goods they are able to make at former costs, and do not yet know what their new costs will be, and the situation is temporarily in confusion. Doubtless, also, the speed of the advance itself inspired conservatism. Operations in the industries generally had increased so rapidly as to regain within four or five months one-half of the volume lost over three and one-half years; and it was feared by all good judges, including General Johnson, that production at this rate was not only exceeding current requirements, but was running ahead of prospective retail distribution.

Moreover, the dollar, whose depreciation was a powerful influence in the buying of commodities, was firmer during most of the month, the average discount from gold having been around 29 per cent compared with the low of 31.6 in July. The connection between the fluctuations of the dollar and the fluctuations of the markets has been a close one, though mainly a matter of sentiment, as these Letters have repeatedly emphasized; and this is as true when the dollar is firm or advancing as when it is going down.

Rise in Industrial Operations Checked

For all these reasons forward buying has slackened, and business has slowed down accordingly. The effect has been to check the rise in industrial operations, and in some industries to cause a moderate recession. Electric power production is slightly lower, particularly in the industrial areas, though still running, over the country, 15 per cent or better above last year. Merchandise and miscellaneous freight car loadings, which are the best though not altogether a satisfactory measure of goods moving in trade, have been declining moderately, whereas usually they are rising slightly at this season. Coal production is lower, as are lumber orders and shipments.

Steel operations have declined from 59 per cent of capacity, the peak of the upturn, to 50 per cent, according to Iron Age's latest estimates, and the sensitive scrap markets are lower. Takings by the automobile, tinplate and miscellaneous manufacturers, whose orders brought about the steel recovery, have declined, and thus far railroad and construction

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buying has been insufficient to take up the slack.

In some of the lighter industries which have been producing at a record pace the pause is also evident. Shoe and leather business has fallen off. The textile industries are slowing down somewhat, though they still have orders to keep them going at a good rate, particularly in the woolens division. The processing tax has proved an almost unbearable burden upon the cotton goods manufacturers, and has set up a confusion in the markets which has nearly strangled business. The industry is appealing for a revision. Its view of the matter was stated by Mr. Howard E. Coffin, chairman of Southeastern Cottons, Inc., in a recent address, in which he said that manufacturers' selling prices of cotton textiles have practically doubled, and that production costs have reached a point where purchasing of textiles and volume of output might be "seriously curtailed," thus "defeating the very objectives which are sought."

The most encouraging showing has been made in the various branches of retail trade. Automobile sales have been well sustained during the Summer, though usually July and August are very slow as compared with the Spring months. After turning out 253,000 vehicles in June, the largest monthly total in more than two years, and keeping output closely in line with sales, the industry showed only a nominal decline to 233,000 in July. Moreover, the August recession in sales has likewise been nominal, according to preliminary reports, and the best evidence that the factories are still finding a market is the continued deferment of a switch to new models. The tire manufacturers also are having a long selling season, and have curtailed production but moderately. Rubber consumption in July was 67 per cent greater than in July, 1932.

August clearance sales by retail stores have been markedly successful. The public is upon notice that prices are working higher and naturally people have bought what they can in anticipation. The chief restraint on these sales, according to Dun & Bradstreet's report, has not been lack of patronage, but "paucity of merchandise which can be reduced sufficiently to strengthen the price appeal." Retail sales have run both in volume and value well ahead of August, 1932, which it will be remembered was a month of sharp business improvement. Department store sales in New York City during the first half of the month were 3.1 per cent larger, in dollars, than a year ago, this being the first time in the depression that these stores have had an increase in dollar sales. For the country as a whole, department store sales in July were 4 per cent larger than a year ago.

The Crux of the Situation

The slackening in the primary markets and in the industries is accepted as inevitable, and there is little evidence that it has diminished the prevailing optimism. However, business men are facing conditions that are new in their experience. They are asked to cooperate in a program that is acknowledged to be experimental, and they are doing so not only wholeheartedly, but with genuine enthusiasm. The experience in cooperation of itself is bound to have beneficial results. But it is natural that some should be impressed by the uncertainties, and should view the forthcoming weeks as a period during which the permanence of the improvement thus far achieved will be put to the test.

Obviously the crux of the situation is whether the higher prices that have been established at wholesale can be paid by the public at retail, as stocks in retailers' hands are replaced by higher priced goods and the advances passed on to consumers. This is a question to which there can be no answer save that of experience, for it involves the whole vast complex of economic relationships. The fundamental condition of a free flow of trade is that wages, costs and prices as a whole should be in balance, and that prices of various goods and services should be in line so that each producer can exchange his product equitably with others. It is certain when trade is depressed that these relationships are unbalanced, but whether the changes that are being made in them under the present program are of a nature to bring them back into balance is a subject upon which economists differ.

The cash income of industrial workers has shown a very substantial and heartening increase, the Department of Labor's index of employment in the manufacturing industries having risen 22 per cent in the four months ended with July, and its index of payroll disbursements having advanced 39 per cent. The Department estimates that 1,100,000 factory employes have been put back to work since March. The income of the farmers likewise has gained substantially; an estimate by the Standard Statistics Company places it at $7,500,000,000 this year compared with $5,240,000,000 in 1932. Moreover, the rise in securities, which between March 1 and August 1 added 16.7 billions of dollars to the value of the stocks and bonds listed on the New York Stock Exchange, is an addition to purchasing power, both through realized profits and the increased borrowing capacity of the holders.

The other side of the question is that retail prices and the cost of living generally are advancing rapidly. Retail food prices on

August 15 were 18 per cent above the low point, according to the calculations of the Bureau of Labor Statistics. The Fairchild index number of department store prices shows an advance of 9.6 per cent, and surveys have been made which show that when stocks now on hand must be replaced further considerable advances in prices will be necessary. The cost of living for industrial workers, as calculated by the National Industrial Conference Board, is moving upward at an accelerated pace, having risen 3.3 per cent in July over June, compared with 1.0 per cent in June over May, and 0.8 per cent in May over April.

Increased Costs

It is inevitable that increased rates of pay per hour under the Recovery codes and the President's Recovery Agreement will add to the unit costs of the goods produced, and must be therefore added to prices unless there are offsetting economies through enlarged sales; and with these increases applied to all agencies of production and distribution, and all added to the ultimate price to the consumer along with the higher raw material prices and the processing taxes, the rise in the cost of living may be a rapid one. The Conference Board has made a study of the hours worked and average weekly earnings for unskilled labor in twenty-one manufacturing industries which shows that in none of these industries were the hours worked as few as 35 per week, and in most of them were in excess of 40. The Board's figures are as follows:

	Average Weekly —Earnings—		Average Hours Actually Worked Per —Week—	
	1926	June, 1933	1926	June, 1933
Agricultural impl.	$24.38	$14.30	50.2	36.8
Automobiles	26.65	22.85	50.8	45.9
Boot and shoe	18.55	15.43	45.7	45.2
Chemical	27.72	18.45	53.4	40.7
Cotton North	19.34	15.49	51.1	52.9
Electrical mfg.	22.68	15.60	47.8	37.8
Furniture	21.70	10.68	48.7	40.9
Hosiery, knit goods	18.37	15.31	48.4	51.1
Iron and steel	27.15	15.31	55.1	47.0
Leather tanning and finishing	22.90	14.77	47.0	42.4
Lumber and millwork	18.49	12.61	48.5	42.0
Meat packing	22.87	18.03	49.3	49.9
Paint and varnish	22.12	17.59	47.7	43.8
Paper and pulp	23.16	15.80	51.7	44.7
Paper products	24.08	19.57	50.7	49.7
Printing, book and job	23.10	19.77	48.4	45.3
Printing, news and magazine	21.72	17.57	45.5	44.3
Rubber	26.88	19.81	49.8	42.7
Silk	24.44	17.62	52.3	46.1
Wool	20.68	17.16	47.2	50.4
Foundries and machine shops	24.49	15.35	50.0	37.6
All industries	23.22	15.83	50.2	43.1

The figures make it clear, as the Board says, that "the application of the 35-hour limitation would require a fairly general increase in hourly rates to produce a weekly income of $14;" and "will result in a very considerable increase in average hourly earnings and in the labor costs of manufacturing concerns." Likewise it is shown that some of the industries are not paying $14 a week even though working 40 hours or more, and the cost increases in these industries will be particularly heavy.

The New York Times states that according to officials of the Real Estate Board of New York, the proposed code for the apartment house industry will raise operating expenses above the peak period of 1929; and this will affect rents.

The New York City milk dealers, having raised prices 1 cent a quart on account of an increase to the farmers, are now applying for another 1 cent advance on account of increased expenses under the code.

These increases in costs and prices will affect the purchasing power of individuals who may not receive any compensating increases of income from the N.R.A. policies.

We will not attempt to draw a conclusion from this comparison of increasing consumer income with the increasing prices the consumer must pay. Thus far it appears that the increase in income has kept step, and more. On the other hand, it will be agreed that the full test has not yet been made.

Profits and the Capital Goods Industries

The foregoing deals only with consumer income and retail prices. These represent but one area of the complex economic relationships which need to be brought into balance. However greatly the purchasing power of factory workers, clerical employes and farmers is increased they will buy only a part of the industrial output, to wit, consumer goods, such as food, clothing, domestic fuel, and as their means permit automobiles, implements, and other durable goods of individual use. The remainder of the industrial output is that purchased by the industries themselves, i. e., capital goods, such as machinery and tools, construction materials, railway and other transportation equipment. No recovery could go very far without including these goods, which normally make up about one-half of the business of the country.

It is the capital goods industries, and the more durable types of consumer goods, which decline most in a depression, and usually advance most in a recovery. In fact, the evidence is that very little decline in the physical volume of articles of every-day consumption occurs even in a depression as severe as this one. Prof. Malcolm P. McNair of the Harvard School of Business has an illuminating article on this subject in the Daily News Record for August 19. He points out that

while department store sales and stocks declined roughly 40 per cent, in dollars, from the boom period in 1929 through the year 1932, wholesale textile prices dropped approximately 40 per cent, according to the Bureau of Labor Statistics, and retail prices in department stores declined 40 per cent also, according to the Fairchild index. We have space to give Professor McNair's conclusions but briefly:

> The close correspondence of all these indices can mean only one thing—the decline in the price level was practically the sole cause of the drop in department store sales. Corroboration of this conclusion also is afforded by figures collected by the National Retail Dry Goods Association on the number of sales transactions in department stores. The number of sales transactions did not show any decrease, but in fact showed an increase until 1932, and in that year the decline was not great. * * *
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> In regard to chain stores, it is safe to say that during this same period the principal types, including variety chains, department store chains, grocery chains, drug chains, shoe chains and apparel chains, experienced a smaller decline in dollar sales volume than did department stores. * * *
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> * * * Aside from the heavy durable items, the physical volume of final consumption is always well maintained during a depression; the decline in sales is almost wholly a price decline. * * *
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> The decline of business activity that takes place in a period of business depression is primarily related to capital goods, not to consumer goods. Stimulation of consumption by final consumers is very far from being the answer. The answer lies rather in the direction of resuming normal investment in the capital goods industries.

If the capital goods industries are to recover, industries must be allowed to profit, business men must feel security in the present and confidence in the future so that they will plan replacements and expansion, and above all a capital market must be reestablished in which lenders and borrowers will have confidence and in which the flotation of corporate securities will again be possible.

Thus it will be as necessary under a controlled as under a free economy to give profits their place among the economic factors to promote recovery; and since profits also supply the incentive to produce and to increase employment, there is double reason for the Administration of the Recovery Act to give them this place. Likewise it will be necessary at some stage to reestablish confidence in the stability of money and credit.

The substitute for private capital investment in the recovery program is the projected expenditure upon public works. This is getting under way, with contracts in this classification showing a marked increase, though still below last year. Residential construction figures are making a good showing, having run ahead of 1932 in each month since May. In the first half of August residential contracts awarded were 31.2 per cent larger than in the same period last year, according to the Dodge reports. These were responsible for an increase of 1.5 per cent in total contracts awarded.

Relationships Between Prices

A third condition of business equilibrium is that prices of various goods and services shall be in equitable relationship to each other, so that the products of each group of the population may exchange in the fullest possible degree. The outstanding disparity, to which these Letters have so frequently drawn attention, is between crude materials including farm products on one hand, and finished products on the other. The trend to July 15 was in the direction of reestablishing the exchange value of the farmer's products. Farm prices on that date had a ratio of 72 per cent to the prices of the things the farmer buys, calculated on the basis 1910-14 = 100. This is a substantial gain over the low point of 49 in February. But the trend was reversed thereafter, with agricultural prices breaking sharply and retail prices, as stated, advancing very rapidly; and on August 15 the ratio was down to 64. The New York Cotton Exchange Service notes that as a result of the special influences advancing cotton goods prices certain constructions are selling at levels previously recorded only when cotton was 25 cents a pound. Obviously the purchasing power of the cotton farmer over the goods made from his cotton is at a low stage while such a relationship prevails.

The inability to bring prices back into equitable relations, each with the other, is the weakness in an effort to clear up a condition of trade disorder by a general influence, such as monetary changes or an inclusive formula for industrial recovery. Such influences may affect different prices differently, and indeed monetary changes at first tend to raise most the sensitive commodities which have been depressed most. However, there is no other ground for expecting general influences to remove disparities which have grown up in the price structure, due to the varying rates of decline during the depression.

An elaborate survey of these varying declines since 1929 was completed by the Bureau of Labor Statistics during the forepart of August, and there is reason to believe that the administrators of the Recovery Act are giving the subject greater attention, even to the point of suggesting that some prices which have declined least should be reduced while those at the bottom of the scale are advanced. This is in harmony with the economic law, but is a field in which attempts at regulation practiced by Governments heretofore have had unforeseen repercussions, and have not been successful.

Efforts of the Overhead Authority

The foregoing is necessarily a brief representation of the complex relationships that must be considered in the effort to reestablish

the equilibrium in business and to get trade going again, and with which the Administrators of the recovery program, possessing unprecedented powers and the undivided support of the country, are now dealing. The hazards into which the program may fall are evident. The condition is that consumers' income has been insufficient to buy goods at the prices asked, and the danger in attacking this problem by raising wages and reducing production, which raises costs and prices, is that money wage payments may force prices upward in a vicious circle without ever getting into balanced relations.

On the other hand, the usefulness of a central authority in promoting cooperation, and in suppressing unfair and uneconomic practices, is beyond question, and to the extent that it conforms to the economic law it may accomplish much toward restoring the equilibrium.

Even though the efforts fall short of the success desired, much may still be hoped of them. At best, economic relations never attain more than a rough approach to an equilibrium, but are always either moving toward it or falling away from it. As long as the changes are in the right direction conditions improve. Moreover, the state of business psychology, or the will to spend, is always a factor of great importance, and it has undergone a great and favorable change. Due to the natural desire of everyone to do business, and the strength of the natural demand for goods and services, recovery can proceed in the face of great handicaps, as long as the spirit of the people is good. The natural movement is now toward recovery, as is shown by the improvement in other countries as well as in the United States.

The Wheat and Hog Plans

A development of great significance in the attempt to overcome the economic disorder is the conclusion of the international wheat agreement in London. By its terms the four chief surplus producing countries will accept maximum export quotas during the present crop year, and will reduce their shipments during the next crop year by 15 per cent of their average surplus. The importing countries agree not to encourage any increase in production, and to begin to lower their tariffs when a price of 63 gold cents per bushel is maintained for four months. Thus a beginning is made toward reducing the tariff barriers, which have uneconomically stimulated production by the importing countries and have caused the crops of the exporters to back up on their hands, with all the resulting paralysis. The tariffs imposed by some of the importing countries have been almost unbelievably burdensome, running up to $1.71 per bushel in France and $1.62 in Germany; and under protection of such high rates importing countries have increased their production since 1930 by 300,000,000 bushels. However, this great burden on consumers has not brought prosperity to the producers. This retreat from extreme economic nationalism may prove a momentous change of trend in international affairs.

Another step in the Government program to readjust farm production and to restore equality of farm prices is the decision to purchase for slaughter 4,000,000 young pigs and 1,000,000 sows, at a bonus above the market price, the pork to be distributed to families on relief rolls. The expense will be met out of a processing tax on hogs, effective October 1. Heretofore the operations of the recovery program had been more against than in the interests of the hog growers, as their feeding costs advanced sharply while hog prices stood still. The dairy industry has been similarly affected, and likewise would seem to have a case for Government relief.

Money and Banking

Federal Reserve Banks during the week of August 23 speeded up their program of Government security buying by adding $35,000,000 to their Government portfolio, as against additions of around $10,000,000 weekly for nearly two months preceding. The purpose of the increase is undoubtedly to put more funds into the market in the hopes that increasing bank reserves will lead to a larger volume of bank loans and hence a greater use of credit. It is recognized that during the early stages of the national recovery campaign business concerns may be especially in need of banking accommodation to bridge over the period during which rising costs may considerably outstep the recovery of income.

Whether a policy of flooding the money market with central bank funds will accomplish this result is a question which time alone can answer. All that can be said is that attempts to force credit expansion by pumping funds into the market have been tried several times before within recent years without success. The trouble, of course, is that the failure of credit to expand has not been due to any lack of funds available for lending but to a scarcity of paper eligible for bank investment. Banks are able and eager to lend whenever suitable paper that can be counted on to be paid at maturity presents itself. They have every reason to wish the recovery campaign a success, and since they make their living out of lending, it is illogical to suppose that they would hold large supplies of idle money if they could avoid it.

Bank Deposits Lower

Demand deposits of member banks, after rising nearly a billion dollars during the Spring and early Summer, have dropped $350,000,000 from the July peak. Repayment of loans on securities following the stock market break has cancelled out deposits, in addition to which corporations have tended to utilize bank deposits for the purchase of securities now that bank deposits draw no interest. Time deposits have held up fairly well, while Government deposits were increased to an unusually high figure following the allotment of new Treasury securities sold on August 15. Gradually, as the Government draws on these deposits and disburses the proceeds the tendency will be to swell the level of demand deposits.

The decline in deposit liabilities, coupled with a further accumulation of reserves as a consequence of Federal Reserve security purchases and other additions to the market, have raised excess reserves of the weekly reporting member banks alone to something like $475,000,000, divided as follows: New York City, $163,000,000; Chicago, $151,000,000; all other weekly reporting banks $155,000,000.

The situation generally illustrates the limited opportunities available for the employment of banking funds. With the decline in loans on securities, holdings of United States Government securities comprised the only important item on the bank statement able to show any substantial increase. Demand for ordinary commercial loans shows as yet no tendency to expand; apparently buyers are able to finance themselves largely out of their own capital, and expansion of business is being reflected by an increase in the turnover of bank deposits. The acceptance business, however, has had a notable pick-up, as shown by an increase of $69,000,000 in bank acceptances outstanding during the normally quiet months of June and July to a point $34,000,000 above the amount outstanding in July last year.

Government Financing and Inflation

The August 15 offering of $500,000,000 8-year 3¼ per cent bonds and $350,000,000 2-year 1⅝ per cent notes was extremely successful, subscriptions totaling $4,801,000,000, of which $835,000,000 was allotted in bonds and $353,865,000 in notes. The reception accorded these issues, particularly the bonds, is highly gratifying in view of the enormous volume of new financing for which the Treasury must find a market during the next year or so. Altogether, the sum total of potential demands upon the Treasury created by the terms of the various relief acts runs up to something like ten billions of dollars over the next two years. Quite probably the maximum potentialities of these acts will not be realized; even so, the amount of new money which the Treasury will have to raise is bound to be very great. Moreover, in addition to raising new money, the Treasury will have to meet its regular maturities, to say nothing of commencing the formidable job of refunding the $6,268,000,000 of the Fourth Liberty loan outstanding which becomes callable this year and matures in 1938.

How are these vast needs to be provided for? Clearly, they cannot be wholly financed by increasing the floating debt; large amounts of long-term bonds will have to be sold. Buyers of such bonds, however, require assurance that the currency in which their holdings are expressed shall be reasonably stable. Hence the need for preserving a bond market should constitute a strong argument against inflation.

Importance of a Capital Market

Reference to the large financial program of the Government naturally directs attention to the general condition of the capital market. This is a time when a healthy, active investment market would be of immense assistance in furthering business recovery. We have already referred to the fact that fluctuations in building construction and other capital goods industries largely determine the difference between prosperity and depression. Such industries, however, finance themselves largely through the capital market. Commercial banks, having deposits repayable on demand, are not equipped to make capital loans.

The capital market, however, at the moment is practically dead. This is not because of any lack of funds available for investment. Supplies of funds are large and adequate to absorb a large volume of offerings; nor are high grade corporation bonds in disfavor, according to the evidence of Moody's index of bond prices which has recently risen to a new post-war peak. Unfortunately, the uncertainties arising out of the recent act of Congress regulating the issuance of new securities are such that issuing houses and officers and directors of corporations are reluctant to assume responsibilities to which they appear to be committed by the language of the act as it now stands. It is significant that the only activity in the high grade market, other than Governments, lies in the municipal field which is exempt from the provisions of the new security bill. During the past month something like $30,000,000 of municipals were sold, including $7,881,000 State of Maryland bonds and $9,500,000 City of Buffalo bonds, both of which issues were well taken.

Did Gold Cause The Depression?

We have discussed this subject and collateral ones a number of times in the last year, at length in the September number, 1932, and in

the February and March number, 1933. The most comprehensive treatment occurs in the March number, to which we refer readers who are interested, since the pressure upon our space forbids frequent repetition of the same matter. The present article is to present sharply the issue between those who hold that a scarcity of gold caused the fall of commodity prices and those who oppose this opinion.

Prominent among those who hold the former view have been Professors George F. Warren and F. A. Pearson, of the New York State College of Agriculture, Cornell University. They have collaborated in writings upon the subject and both have made addresses before meetings of various kinds in different sections of the country, their utterances receiving perhaps wider publicity than any other discussions of the subject. They have been heard with deserved respect and attention, and apparently no more complete or persuasive argument for that side of the case has been made by anybody. In the New York Times of July 23, 1933, they have summed up the anti-gold argument so concretely that the gist of it is readily obtained. The two paragraphs given herewith constitute the entire factual basis for it:

> **From 1914 to 1928, the world's gold stocks increased 38 per cent, and the world's production of basic commodities increased by exactly this same percentage. Therefore the world gold supply was just about adequate to support pre-war prices, provided all the world returned to the gold basis.**
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> **But prices in England in 1928 were 45 per cent above pre-war, and in the United States 41 per cent above pre-war. At that time the countries of the world were trying to return to gold. France returned on June 25, 1928, and the gold panic was soon on. With the panic, tendencies to hoard were inevitable. Therefore less than pre-war prices were to be expected.**

A letter addressed to Professor Pearson directed his attention to a table of Central bank gold stocks from 1913 to 1932 appearing in the Federal Reserve Bulletin for June, 1933, in which these stocks are shown to have been $5,342,000,000 in 1914, $10,028,000,000 in 1928, and $11,291,000,000 in 1931. Inasmuch as this would show an increase to 1928 of about 88 per cent, or more than double the 38 named in the Times article, an inquiry was addressed to Professor Pearson asking an explanation of the difference. He replied with the following letter and table.

CORNELL UNIVERSITY
Ithaca, N. Y.
Department of Agricultural Economics
and Farm Management

31 July 1933

Mr. George E. Roberts,
The National City Bank,
New York City.

Dear Sir:

I have your letter of July 28 regarding world gold stocks. The enclosed table is a summary of the material presented in your bulletin for March and the material we used. Gold stocks in central banks increased more rapidly than world stocks. In 1914, the central banks held two-thirds of this gold, and in 1931 practically all of it.

The additions to central bank stocks represent 82 per cent of the total produced in the period. The data we used indicate that the additions represented 54.5 per cent.

The gold outside the central banks cannot be ignored. It was used to transact business and therefore should be added to central bank reserves to get the total gold. The location of the gold is relatively unimportant. Cotton and wheat sell for ounces of gold, and in the long run it makes little difference where it is located. This is not disputing the general belief that gold is used more efficiently when in the banks than when in private hands.

Very truly yours,
(Signed) F. A. PEARSON.

The letter and table give a simple explanation of the disagreement over gold stocks so far as the facts are concerned. The figures for gold reserves in Central banks (§) which Professor Pearson credits to the National City Bank Letter were there credited to the Federal Reserve Bulletin and have been reproduced in the June number. The figures for "world stocks" which appear in the first column and which he and Professor Warren have used as the basis of their argument, include not only the stocks in Central banks and government treasuries, but estimated amounts of monetary gold outside of these banks and treasuries and outside of Asia.

The addition of $2,678,000,000, for this outside gold, to the known bank reserves of column 2 has given the $8,020,000,000 reported for 1914 in column 1, and with a similar addi-

(§) In this article figures for reserves of gold in "banks" are for Central banks and include government gold held behind currency issues, as in the case of the United States gold certificates and legal tender notes.

Year	World monetary stocks of gold* (000,000)	Gold reserves of central banks and government treasuries** (000,000)	Per cent of world monetary gold stocks held by central banks and government treasuries	Gold added to world's monetary stocks: World gold production 1914 to 1931** (000,000)	Gold added to world's monetary stocks: Computed from reserves of central banks and government treasuries (000,000)	Gold added to world's monetary stocks: Computed from total monetary gold stocks (000,000)
1914	$ 8,020	$ 5,342	66.6	$7,175	$5,949†	$3,907‡
1931	11,927	11,291	94.7	....	....	....

*G. F. Warren & F. A. Pearson: "Prices" (1933), p. 79, multiplied by $20.67.
**National City Bank Monthly Letter, p. 43, March, 1933.
†Equals 82.5 per cent of world's gold production during the period.
‡Equals 54.5 per cent of world's gold production during the period.

tion of \$636,000,000 in 1931, accounts for all of the difference between the two sets of figures. The higher base figure for gold stocks in column 1 for 1914 makes the increase 38 per cent, instead of the 88 per cent of column 2. It may be added that the increase of bank reserves of gold from December 31, 1913, to December 31, 1929, was 112.2 per cent and from 1913 to 1932 144.9 per cent. It is pertinent to consider whether the figures for gold "outside of banks" in 1914 are to be treated as of equal importance. dollar for dollar, with this increase in bank holdings.

The Estimate of "Gold Outside of Banks"

The figures of the first column were originally prepared for the Gold Delegation of the League of Nations by the late Mr. Joseph Kitchin of London, a statistician and writer of authority on the subject. Mr. Kitchin's calculation was made by taking the estimated figures of gold production from year to year and deducting therefrom (1) exports to Asia, and (2) an amount estimated to have been consumed in the arts. The remainder of the year's production was assumed to have been added to monetary gold stocks.

Mr. Kitchin's figures were built upon estimates of previous writers running back as far as such estimates have been made. It is the only way by which estimates of monetary gold stocks can be made and probably as good as can be made, but it does not compare in authority with the figures for gold reserves in Central banks.

Furthermore, that portion of the monetary stock which is in the hands and reserves of individuals is known to be comparatively slow in circulation. It tends to be retained for longer periods than money in business use. Moreover, gold coin is the favorite money for hoarding and there is reason to believe that a substantial percentage of the amount estimated to have been "in circulation" in 1914 and in 1928 was not actively passing from hand to hand as money. Professor Pearson ventures the opinion that "the location of the gold is relatively unimportant," but gold coin buried in the ground is of little more consequence while so located than unmined gold. It is to be borne in mind that his entire argument is predicated upon the theory that the location of the gold is relatively unimportant.

The Change in the Location of Gold

The general suspension of gold payments during the war brought about a radical change in the gold situation. Gold coin ceased to circulate and was gradually bought in by the Central banks at a premium. Furthermore, the new gold from the mines went to the Central banks in much larger proportions than before. Thus in the twelve years ended with 1912 gold production amounted to \$4,711,000,000 and reporting bank reserves increased by \$2,222,000,000, equal to 47 per cent of the new product, while in the twelve years ended with 1930 production aggregated \$4,531,000,000 and the increase of bank reserves was \$4,108,000,000 or 90 per cent. Thus is explained the increased percentage of gold in banks to which Professor Pearson alludes, but which he treats as of negligible importance, although he hedges by saying that he is not disputing the general belief to the contrary.

There is no contention over Professor Pearson's claim that monetary gold outside of the counted stocks cannot be ignored, but there is emphatic dissent from the claim that the location of gold is "relatively unimportant."

The Velocity of Circulation

All authorities upon money agree that what they have called velocity of circulation, or the rapidity with which it is turned over, is an important factor in the relation of the money supply to the price level. Furthermore, by velocity of circulation is meant not only the rate of physical turnover for the standard, or basic money, but the rapidity with which payments are effected through all forms of purchasing power which are used as substitutes for money, including the facilities afforded by the banking system. Thus Professor Irving Fisher of Yale University, who probably has written more upon the relation of money to prices than any other man, has devised an algebraic expression of the quantity theory, of which the interpretation is that the quantity of lawful money (M) multiplied by its velocity of circulation (V) plus the quantity of bank money, or deposits (M'), multiplied by its velocity of circulation (V') all divided by the quantity of goods and services moving in trade (Q) produces the price level (P). Thus

$$\frac{MV + M'V'}{Q} = P.$$

It may be added that Professor Fisher did not devise this formula in defence of the gold standard.

The idea of a pyramid of paper money, credit and obligations of all kinds resting upon the gold reserves is a misconception of the facts. The paper money in circulation is supported by the demand for it in circulation so long as the volume is regulated by convertibility into the standard money, which is the money of international payments, gold. Gold redemption effects an automatic restriction of the currency to the amount required by the needs of trade, thus stabilizing the value. The volume of bank checks is being constantly redeemed by mutual cancellation in the clearing houses. The final support for all these instruments of exchange exists in the volume of products moving in trade. The currency notes render a

service analogous to that of bills of lading, both being paper representatives of goods moving in the exchanges. The real purchasing power is in the goods that are being exchanged. Gold serves as the standard of value and the paper money and bank checks are the media of payments. There is no such pressure upon gold as represented. Each part of the mechanism of the exchanges carries its own load and does not have to carry the burden of the other parts. It may be added that the anti-gold people are not always consistent: most of them disclose a more or less hidden opinion that gold might well be dispensed with entirely.

The Economy of Gold in Bank Reserves

The statement that "wheat and cotton are sold for ounces of gold" is not in accord with common knowledge, and has little recognition in the latter-day teaching of economics. It is true only in the remote sense that when the gold standard is in effective use all currencies other than gold are regulated in volume to maintain parity at the standard, which has a very different significance. There is no controversy over the proposition that the supply of means of payment must be kept proportionate to the volume of business. The issue is whether or not it has been proportionate, from 1913 to the present time, and the only way to settle that is by reference to the facts, which is the purpose of this discussion.

It is now in order to examine the contention that gold "outside of Banks" is of equal importance to gold in the reserves of Central banks. We have practical agreement among economists that paper currency and bank deposits must be included with the standard money in considering the relation of money to the price level. There is the evident fact that gold in hand-to-hand use as a medium of exchange performs only the same function as an equal sum in paper money or bank checks, and the further fact that gold held in bank reserves, essentially for the settlement of balances and regulation of the currency, enables a much larger amount of paper currency or bank credit to be used in circulation.

Gold has practically disappeared from circulation in all countries, mainly by the choice of the public, because paper money and bank checks have been found to be more convenient. Moreover, they effect an economic saving. The formal money in circulation in this country consists chiefly of forms of government credit, including Federal Reserve notes in that category, but the volume of bank deposits, the chief means of payment is greater, by a ratio of more than 10 to 1. Thus in the five years from 1925 to 1929, inclusive, the money in circulation outside the Reserve banks and Treasury fluctuated but little and averaged about $4,850,000,000. The average aggregate of bank deposits was above $50,000,000,000 during this time, and there is reason to believe that the deposits were turned over more rapidly and accomplished a proportionately larger volume of payments.

Circulation of Bank Deposits

The Federal Reserve Board collects figures for the debits charged by the banks of the country to the accounts of their depositors, representing chiefly transfers by checks. The average aggregate yearly in the five years 1925-29 was $718,662,000,000. There is no way of knowing the aggregate of cash payments in a year, but the average amount of money in circulation in that time was only .68 of 1 per cent of these annual payments made by checks.

The January, 1933, number of the Federal Reserve Bulletin contains an analysis of these debits in three groups of banks over the period named and since, the groups being composed of the member banks of New York City as one, of 38 other leading cities as another, and of 102 smaller cities over the country as the third. The second group shows that both volume of deposits and rapidity of circulation increased rapidly in the boom years and declined rapidly after 1929. The review says:

> Changes in debits to individual accounts have been much larger than changes in the deposit accounts themselves. This more rapid decline in the volume of money payments than in the volume of bank deposits represents a decline in the velocity of turnover of bank deposits.

It shows that for "the reporting member banks in leading cities" the volume of payment "increased much more rapidly than deposits at these banks, and the turnover increased to a rate of 45 times per year." Clearly this account justifies the inclusion of bank deposits, or bank checks, as currency. It goes on to say:

> In 1930, while deposits continued to grow, there was a decrease in their use because of the depression, with the consequence that the rate of turnover declined by the final quarter of the year to a rate of about 26 times a year. Since 1930 deposits have declined rapidly, but business activity and other factors determining the volume of money payments have declined even more rapidly, with the result that turnover in the last quarter of 1932 was reduced to a rate of 16 times per year.

The foregoing affords proof not only of the leading part that bank deposits play as means of payment, but that the decline of business since 1929 has not been for lack of means of payment, the circulation of deposits having declined more than the deposits themselves. The advocates of more money lay all emphasis on the approximately five billions of formal currency in circulation and scarcely recognize the fifty billions of deposits as currency at all.

Potentiality of Gold in Central Banks

The potentiality of gold in Central banks in comparison with money in circulation is con-

Monetary and Banking Statistics, 1913-1932
(Millions of dollars)

	Dec. 31 1913**	Dec. 31 1929	Dec. 31 1932	Per Cent Change 1913-1929	Per Cent Change 1913-1932	Actual Increase 1913-1929	Actual Increase 1913-1932
1. Total Gold Stocks (Incl. gold in circul.)..	1,905	4,284	4,553	+125.0	+139.1	+ 2,379	+ 2,648
2. Gold in F. R. Bank & Treasury (Reserve)	1,524†	3,900	4,044	+155.9	+165.4	+ 2,376	+ 2,520
3. Loans and Investments of all Banks..........	20,788	58,417	44,946	+181.0	+116.2	+37,629	+24,158
Ratio of loans & invest. to gold reserves..	13.6 to 1	15.0 to 1	11.1 to 1				
4. Deposits of all Banks***..........................	18,566	55,289	41,643	+197.8	+124.3	+36,723	+23,077
Ratio of deposits to gold reserves..............	12.2 to 1	14.2 to 1	10.3 to 1				
5. Deposits of Member Banks........................	6,374*	33,865	24,803	+431.3	+289.1	+27,491	+18,429
6. Deposits of Non-member Banks..................	12,192	21,424	16,840	+ 75.7	+ 38.1	+ 9,232	+ 4,648
7. United States Money in Circulation...........	3,459	4,865	5,675	+ 40.6	+ 64.1	+ 1,406	+ 2,216
Ratio of money circul. to bank deposits....	1 to 5.4	1 to 11.4	1 to 7.3				

*National Banks.
**Items 3-7 as of June 30, 1914.
***Exclusive of interbank deposits.
†Includes gold in commercial banks. The reserves were more fully employed in 1913 than in 1929.

cretely shown by the above table of monetary and banking statistics, covering the period under review and down to last year.

Significance of the Table

The Federal Reserve system had not been organized at the end of 1913 and the country's stock of monetary gold was mainly in the Treasury and the commercial banks. The increase in the country's stock from 1913 to 1929 was $2,379,000,000, and if there had been no banking system or similar means of utilizing credit as media of exchange, it may be assumed that this sum would have gone into circulation and constituted the only addition to the monetary stock. But individual bank deposits, the utility of which as a circulating currency is described above, increased to 1929 by $36,723,000,000, and bank loans and investments increased by $37,629,000,000; and at the end of 1932, notwithstanding the drastic liquidation of three years, deposits were still $23,077,000,000, and loans and investments $24,158,000,000, above the 1913 figures. For the information of some readers it may be added that the close relation between the two sets of figures arises from the fact that most deposits are created by bank loans and investments.

In 1913 the ratio of deposits to gold reserves was 12.2 to 1, in 1929 14.2 to 1, and in 1932 10.3 to 1; also, the ratio of bank loans and investments to that gold in 1913 was 13.6 to 1, in 1929 15.0 to 1 and in 1932 11.1 to 1. This is the tangible evidence of how credit was created and made to serve as currency in the period under review.

It will be seen that the percentage increase of deposits in 1929 over 1913 was 197.8, and in loans and investments 181.0. Professors Warren and Pearson have not claimed that there was any such increase of physical production; indeed they say that from 1914 to 1928 it was only 38 per cent.

Increasing Efficiency of the Banking Organization

It should be understood that this increase in the amount of bank credit in use in 1929 over 1913 was not wholly due to the mere increase of gold in the reserves, but in part to an increase in the potentiality of the reserves, effected by changes in the law determining reserves. When under the Reserve act the reserves which had been scattered in individual banks were gathered together, and supplemented by the power of note issue given to the Reserve institutions, it was deemed possible and advisable to reduce the legal reserve requirements, and it was done in the original act, and a further reduction was made in 1917. A book entitled "Reserve Balances," by Professor Leonard L. Watkins, of the University of Michigan, published by the A. W. Shaw Company, Chicago, in 1929, gives (p.86) a table showing the reserves that would have been required of National banks to meet the legal requirements of their deposit holdings as of June 30, 1926, computed under the several acts. It shows that under the act of 1917 the amount required was $1,841,000,000 less than the requirement before the Reserve system was established. The practical effect was the same as though the gold reserves had been increased by a corresponding amount.

A similar change has been made in the currency system of Great Britain. Between 1913 and 1929, what is known as the "fiduciary issue" of the Bank of England, which is an issue made against government securities instead of gold, was increased from £14,000,000 to £260,000,000, thus effecting an economy of gold which at the then existing rate of exchange between pounds and dollars amounted to about $1,250,000,000. Thus the aggregate economy in the two countries is about $3,090,000,000, and similar changes have been made in the currency systems of other countries, although of smaller amounts. The grand aggre-

gate is certainly not less than $3,500,000,000, which in effect may be considered as practically added to the gold stocks shown by Professor Pearson's table. This was an economic gain, the product of more efficient organization, and if this gain is allowed for as a constructive addition to the figures for gold stocks in 1928 used in the Times article, the increase in the working value of the holdings from 1913 to 1928 becomes 82 per cent, instead of 38 per cent, waiving the protest against the gold in circulation.

Furthermore, it would be in order to make allowance for the foreign exchange holdings of Central banks in banks of other countries, in cases where by the authority of governing bank acts they were counted as part of the legal reserves. Such holdings, largely in the form of claims on London and New York, aggregated in 1928 about $2,600,000,000. The so-called gold exchange standard has been criticized, but the practice continued on about the same scale until after 1929; hence its discontinuance did not start the crisis. However, we will contribute this to the discussion for "good measure."

The Warren-Pearson argument takes no account of these changes in Reserve requirements, and assumes that gold in Central bank reserves has no greater efficiency in monetary service than gold in circulation. This premise as stated in the quotation is so fundamentally erroneous as to vitiate the entire argument based upon it. The supply of media of exchange was not restricted from 1913 to 1929 as the theory held by the authors has led them to believe. The truth is that more credit was brought into use in those years than could be used in normal industry and trade and its overflow into speculative uses was one of the important causes of the disaster, use in war being the chief one.

The Reserve System Not Extended in 1929

It should be added that the foregoing figures for the actual expansion of bank credit from 1913 to 1929 do not fully reflect the increased economy of the Reserve system over the system of individual reserves which preceded it. For while the individual system was extended to practically its limit in 1913, the Reserve system was nowhere near its limit in 1929. The act permits an increase of the note circulation until the reserve percentage is down to 40 and of deposits until the lawful money percentage to deposits is down to 35, but its gold percentage over all did not get below 60 at any time between 1922 and 1929. Although there was an apparently unlimited demand for credit in those years, it was largely for speculative purposes and the authors of the Reserve act very wisely had forbidden the use of Reserve credit for any but strictly short time industrial and commercial purposes. Such demands are naturally limited by the capacity of the industries, which in the period named were operating practically at full capacity, with great resources in the Reserve system unused.

Any representation that the Federal Reserve system was strained in the years 1923-29, or anywhere near the limit of its capacity to extend credit, is in violation of the obvious truth.

As to conditions in Europe, we call attention to an extract appearing in the March number of this publication from a paper prepared by Professor Felix Mlynarski, former Deputy Governor of the Bank of Poland, written for the Gold Delegation, of which he was a member, in which he gave figures showing that in the four years from the end of 1925 to the end of 1929 the gold reserves of the Central banks of Europe (excluding Lithuania, Esthonia and Danzig) increased by 47 per cent and their combined reserves of gold and foreign exchange increased 76.5 per cent. Moreover, the depression did not have its beginning in Europe, but in the United States, in the collapse of a riot of speculation which as already remarked had been promoted by excess supplies of credit.

In Conclusion

There is much more to be said along the same line, but lack of space forbids at this time. There is no answering the evidence that this country now has monetary and credit resources as great as in 1929, and that they are ample to sustain the price level of that time, if the other conditions essential to normal trade relations exist.

We repeat the affirmation of last month, that the easy and rapid rise of commodity prices which occurred from March to the middle of July afforded ample evidence that the low prices had not been due to lack of money or credit. When the **will to buy** was manifested, prices rose as readily as ever, and that they subsequently receded in part does not affect the argument at all. The rise had not exhausted the supply of money and credit; it had scarcely stirred the money markets. Prices halted and declined because the **will to buy** had weakened. The facilities for buying are still ample.

We repeat also that if, with facilities already ample, unneeded facilities are created, the basis will be laid for another riot of speculation, perhaps surpassing that referred to above.

Known derangements in industry and trade adequately account for the trade disorder and fall of prices over the last four years without dragging the monetary system in on vague suspicions. The action of the Government

upon farm relief is based upon the theory that disordered production is responsible for the agricultural distress. The National Recovery Act is based upon the theory that disorder exists in industrial relations, and both of these theories unquestionably have truth enough in them to account for all our troubles.

Inflation of the currency is no remedy for disordered relations in production and trade. It would be like attempting to start a stalled automobile by lubricating the bearings when the power-generating mechanism was out of order.

This is no time for radical experiments with money and particularly of the kinds condemned by all past experience. There are uncertainties enough without creating unnecessary ones. As to the tabular standard, it is clearly not of early practicality, to mention no other objections. It would require more international cooperation than the gold standard, and the world is not at all prepared for such cooperation.

Is There Work Enough To Go Around?

This question looms up as one of the most vital and pressing of the time. Ever since the march of industrial progress began, by the use of steam-power and machinery in production, every period of slackening trade has aroused apprehensions that labor was being permanently displaced, and the continuing depression of the last three years has brought an alarming renewal of this agitation.

In a discussion of this subject in these columns two months ago a quotation was made from the writings of Professor Richard T. Ely, who has long held an eminent position in the ranks of this country's economists. We have referred before to his long career at the head, first of the Department of Economics of Johns Hopkins University and later at the University of Wisconsin. Retiring from university work after passing his seventieth birthday anniversary a few years ago, he organized and has since been the directing head of the Institute for Economic Research, New York.

Our quotation from Professor Ely brought a letter from him in which he has elaborated the points referred to, and which we are glad to have the privilege of giving herewith:

Mr. George E. Roberts,
National City Bank of New York.

Dear Mr. Roberts:

I have been interested in your quotation from me to the effect that "as our economic life advances it becomes more and more one of relations" and your use of it as an explanation of the disorder which has existed in industry over the last three years. Your argument, including its refutation of the fallacy that it is necessary to reduce working hours in order to provide employment for all, is in full harmony with accepted economic doctrine.

Economists have long recognized that human wants are insatiable. As soon as one want is satisfied another is born and in general the satisfaction of the lower want brings into existence and strengthens a higher want. It is scarcely an exaggeration to say that it is inconceivable that we could ever produce enough to satisfy all human wants even if we consider only those wants the satisfaction of which on humanitarian grounds we must call desirable. Whatever may be necessary in an emergency, we should always hold before us, as an ideal, greater and greater production as a condition of social progress.

Our efforts do not end with supplying our physical wants. As physical needs are satisfied our efforts must be turned to the satisfaction of higher wants, a field which may be said to be of endless possibilities.

Everybody who is interested in Education, as I have been all my life, deplores the necessity which may exist for reducing expenditures upon schools in these hard times. It may be that all expenditures upon schools are not made with the greatest possible wisdom, for ideas about Education change like everything else, but we do not expend too much money on Education. Our social and economic life is increasingly complex and the Education now provided is grievously inadequate to prepare us for our varied social, political and economic responsibilities.

Expensive as government is we need to have better government, which probably means greater expenditures. Law enforcement is breaking down, and our police forces are inadequate in number, in quality and in training. They are not overpaid; I would like to see higher pay for the class of men we should have in that service. Better training, physical and mental, in my opinion, is required for adequate protection to person and property.

The matter of grade crossings for railways and highways is of pressing importance, for public safety. Slum clearance and improved housing are other improvements for which we are waiting impatiently. But the basis of all such progress is economic progress. We can do these things only as we are able to spare time and labor from the more pressing demands upon us. One hundred years ago, 75 per cent or more of the population had to be on the land to provide a simple living for the population; now probably less than 30 per cent will suffice, but this does not mean that unemployment need result. We have a larger working force to produce other things, and this is the answer to all the talk to the effect that there is danger of not having work enough to go around.

The aim of all our productive efforts must be the proper balance in the utilization of natural resources, of capital and of human toil of all sorts. Instead of the term "balanced production" we might use the term "proportionality of production." We have troublesome surpluses on account of this lack of proportionality. Unemployment is the result of faulty distribution of the working forces or of some maladjustment of relations which prevents the ready exchange of products and services. Even if we had balanced production and proportionality in our economic life with an eight-hour day, we could not at any time that is foreseeable satisfy the wants which from an ethical and social point of view we would like to see satisfied.

Supply and demand are the most fundamental forces in our economic life, and the problem of problems is adjustment. It is a strange delusion that the way to produce plenty is to create scarcity. It is another strange delusion that high prices are a blessing. High prices mean limitation of supply and unsatisfied wants. Progress means low prices as an ideal. If the aim in the automobile industry had been high prices instead of abundance, our wants for auto transport would be far less fully satisfied than they are. It is a great triumph of the automobile industry that quality has been improved and prices have gone down.

Another false ideal is that of a working day of two or three hours. I entirely agree with the utterance of Hon. John W. Davis on his recent return from Europe when he said that no man should work less than eight hours a day. Work is a blessing and not a curse. The aim in our production should be to bring about such conditions that a man may find joy in his daily occupation. If he does not find it there his life is surely a failure. The danger of idleness

and its resultant demoralization of young and old is a more menacing problem than that of an excessively long working day.

Goods and services are exchanged for goods and services. In the proper functioning of economic society, money and credit are simply the instruments—the media — whereby goods and services are exchanged. We need more production of goods and services; but they must be properly distributed so as to give us balance and proportionality. To bring about this balance and proportionality is a problem to which we should direct all our efforts. It is impossible to solve this problem with 100 per cent perfection; but if we set about it in the right way and with the goal before us of the highest attainable civilization, we can make immense strides in the improvement of conditions and the movement in the direction of the goal should continue during all human history.

If the Technocrats were right, which they were not, and we could produce the material goods to satisfy our wants with only a small fractional part of our labor and capital resources, that would not necessarily mean human unemployment or absence of opportunity to use our capital. We would be in the fortunate position then of being able to direct our economic life to a greater extent than ever before to the satisfaction of those higher wants of humanity which know no limit.

Richard T. Ely, President
Institute for Economic Research,
New York City.

Professor Ely's letter confirms the interpretation of the quotation previously given in these columns and of the views set forth in the August Letter. The essential facts are that the members of the economic system buy from and sell to each other, the purchasing power of each existing in his own products or services. This practically means an exchange of services and that the offerings must come on the market in balanced relations, in order that there may be no surpluses. The state of balance means a balance of values, so that the exchanges clear up the offerings.

With the system in balance, there is no limit upon employment and production until every one's wants are so completely satisfied that he does not care for further employment, which would mean that for him the problem had ceased to exist. Everybody is free to drop out of the economic system when he chooses to do so. However, as Professor Ely points out, the point of satiety is never stationary. Human desires are forever beating against their limitations.

On the other hand, whenever for any reason the system is thrown out of balance (as by war) all of the familiar symptoms of disorder, viz: accumulating surpluses, unemployment (a form of surplus), falling prices, etc., appears; and conversely, whenever these symptoms appear they are proof of unbalanced relations. There is no way of correcting them except by intelligent readjustment. To cut down the hours of all employment is to accept the undesirable and unnecessary condition and force everybody to share in it.

When all business is recognized as an exchange of services it will be seen that with balanced relations the question of creating "purchasing power" to balance production would not arise.

All of the confusion in the industrial system witnessed in the last four years with the distressing results in social life—the pressure of want, the anxieties and agonies of apprehension, the broken careers, the disrupted homes, the daily record of suicides—have been due in but insignificant part to bad laws, evil intentions or "machinations," or even the "human greed" so universally denounced, but to failure on the part of the numerous groups of the economic system to agree upon the terms for exchanging their products and services. The system has developed beyond a general comprehension of the mutual relations.

Profits of the Steel Industry, 1921-1932

Most of the controversies which vex social life are due to misinformation. It is of great importance to have correct information about the facts to which any disagreement is related. One of the most controversial of subjects is the profits of industry. It has been often loosely asserted that the high profits of industry brought on the crisis and depression and it is very important that the truth of the matter shall be known. The very concentration of industrial control makes it of greater importance that the control shall be well informed. Miss Frances Perkins, Secretary of Labor in the President's Cabinet, is a person of high intelligence, and her sincere desire to render public service cannot be doubted, but intelligence and good purposes may go astray if wrongly informed. She has been an advocate of the short week with the minimum wage at a fixed rate, regardless of time worked, in order to spread employment, and a believer in the potency of high wage rates as a means of creating purchasing power. Both of these proposals are subject to the master principle laid down by economists that the key to full employment and high wages is in balanced relations throughout industry, which means (1) that if the economic system was in balance there would be no need to spread employment, and (2) that if the compensation of any industrial group, be it farmers or wage-workers, is either increased or reduced to a degree which disturbs the normal exchange relations with the other groups, industry will be disturbed and unemployment will result.

Miss Perkins was active in endeavors to have wages raised in the steel industry and she based her argument upon the principle just outlined. She was reported in part as follows:

"It may be necessary to make drastic increases in wages to accomplish the purposes of the act. But if recovery is to be achieved a larger portion of the money product of industry must go to those who con-

stitute the main body of the consumers." In support of her argument she pointed out that during the prosperous years prior to 1930 "a declining share of the value of the products of the iron and steel industry . . . went to labor."

This argument is particularly in behalf of the economic balance between employers and wage-workers, but the economic balance between industries is a broader and even more important application of the same principle.

The Bureau of Agricultural Economics, Washington, D. C., has been giving out monthly for several years a statement showing the relation of current prices for the principal farm products to the average prices of the five years 1909-14, and the latest statement shows such prices as of August 15, 1933, to have been 28 per cent *below* those of 1909-14. This compares with 36 per cent below on June 15 and 41 per cent below August 1932. This shows a substantial gain from the lowest point, but average wage-rates in the iron and steel industry have not been less than 100 per cent *above* the pre-war level at any time during the depression. This is a striking illustration of the disruption of normal relationships which causes bad trade and unemployment.

Earnings of the Steel Industry Before 1930

The steel industry always has denied that its profits were high in the years named, and there is much evidence that it was earnestly complaining of their inadequacy at the time.

In 1928 Mr. Charles M. Schwab, Chairman of the Bethlehem Steel Corporation, was President of the Iron and Steel Institute, and at its annual meeting on May 25, 1928, in his opening address he discussed conditions in the industry at considerable length. Among other things he said:

> No one can view the steel industry today without reaching the conclusion that this fundamental American business is apparently content with a profit on its investment amounting to little more than the interest one can earn from a savings bank deposit. Here is a business which provides the essential elements of practically all industrial, manufacturing and transportation effort. It pays its workers higher wages than are paid in almost any other line of manufacture. In manufacturing efficiency it is second to no other industry in the world. Capital investment in the steel business is greater today than it ever was. Our output reaches record volume. We are wonderfully well equipped and organized to perform the enormous service which the development of a growing country demands of this basic industry. I do not think, however, that this country intends to demand the service we are rendering for the small return which the steel industry is currently receiving. I do not mean to imply that the steel industry expects large returns. Industry generally has been adapting itself very well to narrower margins than heretofore. But we have a right to expect, and it is in the public interest, that we earn enough to provide for the expansion, modernization, and development of our plants which the country's ever growing needs constantly require.
>
> The economic ills of the steel industry are well-known and have been much discussed, so that I need refer only briefly to the outstanding facts. The total investment in the steel industry of this country is approximately five billion dollars, of which approximately one and one-half billion dollars has been added during the last fourteen years. The rate of return upon this investment of five billion dollars has been approximately five per cent and virtually no return at all has been earned upon the additional one and one-half billion dollars last invested, the total earnings in the industry today being only slightly more than they were fifteen years ago, before the additional investment in plant had been made. The rate of return upon investment in our industry is almost, if not quite, the lowest return earned in any of the principal manufacturing industries.

He was talking to an audience of iron and steel producers, all as familiar with conditions in the industry as he was himself, and he went into some of the details showing that large investments by the competing companies to obtain relief from the pressure of low prices by reducing costs had resulted only in reducing prices to the public. In the case of his own company the average production cost of the product had been reduced $7.27 per ton between 1913 and 1927, but since all of its competitors were accomplishing the same results and the pressure of competition remained the same, the gains to the companies from the new economies had been practically nil.

In July, 1928, the newspapers carried reports of an interview with Mr. James Campbell, head of the Youngstown Sheet and Tube Company, a company which during the war and post war period, made large expenditures upon new equipment, from which we make the following brief extract:

> The rapid depreciation of manufacturing facilities is one of the distracting problems of management. Anything built six months ago is almost obsolete; it is a very difficult situation.

There is other such testimony in the trade papers and elsewhere, but these two quotations reflect contemporaneous discussion in the steel industry. They indicate that the expenditures for cost reduction not only accomplished that purpose but had the effect of increasing capacity and production, with results upon prices similar to those experienced in recent years by the wheat growers. This was an almost inevitable effect, because the low costs of modern industry are conditioned largely upon mass production. The state of facts revealed is commended to the attention of people who imagine that there is no real competition outside of agriculture.

If these quotations are accepted as giving the true state of the steel industry at that time, profits represented a declining share of the product, and wages represented an increasing share. Moreover, all wage-workers, whether in the steel industry or not, shared with the general public the benefits of declining prices for steel products. Steel products enter into all production, and declining prices for them mean lower costs for all consumable products.

The real subject of concern today is not the relation between profits and wage-rates in 1929, which is past history, but the exchange relations between the products of the different

industries. The Government is carrying on a great campaign to raise the exchange relations between agriculture and the other industries, and that campaign will be futile if the prices of other products, including steel, are to be raised as fast as the prices of farm products.

A Suggestion for Reducing Costs

Mr. Schwab in his speech discussed the economic waste resulting from the cross-hauling of the products of competing producers between the different points of shipment and the different markets, and suggested that an arrangement among producers to avoid or lessen it might be helpful to the industry. He said upon this:

> Many of us have for a long time been thinking along these lines and yet have felt powerless to remedy the situation. The steel industry is a law-abiding industry and the members of it are law-abiding citizens. But surely where laws force uneconomic conditions into existence one may well consider whether the laws should not be changed. I want you to get that. It is obviously in the public interest that every industry should be conducted upon the most economical basis possible. It is equally important that the public interest should at all times be protected against agreements affecting prices or trade conditions which might themselves become a burden upon the public. But surely, between these two horns of the dilemma, there must be a middle ground which would be in the interest alike of the manufacturer and the consumer, and of national prosperity as a whole.

This paragraph is reproduced as possibly pertinent to the new system of centralized control under public supervision. It may be that the N.R.A. will be able to accomplish economies along this line, although such an effort probably would meet objections that the cross-hauling was needed to give earnings to the railroads and wages to railroad employes, support the coal industry, etc., along with all the other arguments against new machinery and new methods.

Earnings Figures from the Books

We have had an examination made of the annual reports of the twenty largest companies engaged in the manufacture of iron and steel, over the twelve years 1921-32, and a computation made of their aggregate sales and aggregate net earnings, calculating profit percentages upon the aggregate net worth of the companies as shown by their balance sheets and also upon the sales value of the product. The result is shown in the accompanying table.

Over the 12 years the average rate of return on owners' capital obtained by these twenty corporations was 4.3 per cent and upon value of product 6.2 per cent.

For the seven exceptional years 1923-29 the yields were 7.1 and 8.1 per cent respectively. The banner year was 1929, but the unusual results in that year were almost wholly due to the fact that the industry was operating practically at full capacity. Every business man knows the effects upon profits of the last

Earnings Return on Net Worth and Sales of Twenty Leading Iron and Steel Companies
(In Thousands of Dollars)

Calendar Year	Net Worth, January 1	Annual Net Profits	% Profits To Net Worth	% Profits To Sales
1921....	$2,517,246	$ 25,815	1.0	1.9
1922....	2,492,190	60,331	2.4	3.5
1923....	2,543,458	204,447	8.0	7.5
1924....	2,835,730	148,012	5.2	6.6
1925....	2,842,367	167,349	5.9	6.5
1926....	2,919,638	218,300	7.5	7.8
1927....	3,030,592	165,445	5.5	6.9
1928....	3,083,599	209,334	6.8	8.2
1929....	3,162,245	352,669	11.2	12.9
1930....	3,790,793	175,806	4.6	8.3
1931....	3,919,246	D-16,121	D-0.4	D-0.1
1932....	3,765,364	D-150,798	D-4.0	D-20.3
12 year period	1921-1932		4.3	6.2
7 " "	1923-1929		7.1	8.1

D- Deficit.

Note: Figures for the percentage of net earnings based on sales are not available for all these 20 companies, but companies whose aggregate net worth amounted to about 85 per cent of the aggregate of the 20 showed the rates given.

10 per cent of capacity volume, and also knows the uncertainty of that 10 per cent. It never can be counted on for very long. An important change of policy based upon a short period of full operations might result in serious derangement of the industry. Moreover, the profits of that year are included in the averages for the periods shown and must be considered in connection with the profits of the other years. The period under review was the greatest period for maintained operations at a high rate ever known to the industry.

It is to be considered also that these figures are averages for the 20 largest companies, and include the leading low-cost producers. Any regulation of the industry based upon what they can stand and survive would necessarily apply to all other producers, and might force a further degree of concentration in the industry. Whether it would be desirable to force such results, with the accompanying displacement of labor, destruction of property values, effects upon the community life of the localities affected, etc. is something about which opinions probably would differ.

In the last number of this publication the statement was made that the average share of capital in the value of the product of all the industries of this country probably did not exceed 5 per cent, and letters received indicate that readers received this estimate with some surprise and skepticism. The proof is ample, and this is the first installment. Probably if a popular poll had been taken for opinions as which line of industry had made the largest profits in the boom period, and which had the most effective control over the prices of its products, the iron and steel industry would have led in the result. When everybody tells everybody the same thing it is generally accepted without many persons taking the trouble to ascertain the facts.

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